CONTROL ACTIONS (STATE WATER RESOURCES CONTROL BOARD)

Action # 1 - Use of Water Rights Authority

Best available technology is available (reverse osmosis and/or electrodialysis) to clean the tail and tile water from this irrigated area. Failure to use best available technology should result in an enforcement action to cease irrigation. **(City of Stockton; 4/15/96)**

The Regional Board does not have the authority to address water rights issues. Water rights are under the auspices of the State Water Resources Control Board. The control action has been revised to state more explicitly the conditions under which the Regional Board will request that the State Water Board consider precluding the supply of water.

Page 27, Subsurface Agricultural Drainage, Paragraph 1. The text should be revised to read ". . .if water quality objectives for selenium are not met. . . ." **(DPR; 4/18/96)**

The use of the State Board water rights authority to preclude the supplying of water to specific lands may be an effective tool in controlling other pollutants besides selenium. Therefore, the Board should retain the option to request the State Board to use this authority to control discharges if circumstances warrant. With respect to pesticides, the circumstances that would have to exist before this action was considered would dictate that both the Department of Pesticide Regulation and the Regional Board had exhausted administrative efforts to achieve compliance.

. . .the implementation plan must make the penalties for non-compliance with the water quality objectives explicit. Control Action (1) related to the State Water Board states, "The Regional Board will request that the State Water Board use its water rights authority to preclude the supplying of water to specific lands, if water quality objectives are not met by the specified compliance dates and Regional Board administrative remedies fail to achieve compliance." We recommend that the language of this Control Action be changed to cause the Regional Board to request the withholding of water by the State Board if water quality objectives are not met regardless of the success or failure of Regional Board administrative remedies. We contend that if water quality objectives are not met by the compliance date that the Regional Board's administrative remedies have failed. **(Contra Costa County; 4/17/96)**

Compliance with the water quality objectives will be achieved through prohibitions of discharge and the issuance of waste discharge requirements. The Water Code provides the Board with a variety of enforcement options should dischargers fail to comply and in the interest of justice the Board must consider the circumstances before determining which enforcement option is appropriate.

180,000 acre/ft of water per year has been committed to this project which results in the creation of an environmental hazard, and then the Board orders that the Grasslands partially mitigate this hazard through dilution. This effort to solve the pollution problem by dilution is

a waste and unreasonable use of water as defined in the State Constitution. **(City of Stockton; 4/15/96)**

The Regional Board has not ordered the use of dilution to mitigate the impacts of the discharge of agricultural subsurface drainage. The program proposed in the Basin Plan Amendment uses prohibitions of discharge, waste discharge requirements and effluent limits to achieve load reductions to eventually bring receiving waters into compliance with water quality objectives. The proposed program does not require or promote the waste or unreasonable use of water. Dischargers have used and are expected to continue to use water conservation efforts to reduce the discharge of selenium to the San Joaquin River.

The State Board, through its water rights authority, can make a determination of waste and unreasonable use of water and in their comments on the proposed Basin Plan Amendments no such comment has been made. The State Board still has review and approval authority over all Basin Plan Amendments. The State Board is presently reviewing a water rights petition on waste and unreasonable use for water used in the drainage problem area. This review may clarify the status of such use.

Item 1 is a recommendation that the State Board uses its water rights power to prohibit delivery of water to certain lands if water quality objectives are not met. The Water Authority strongly recommends that the final sentence be modified to read. . . "The Regional Board will request that the State Water Board use its water rights authority to preclude the supplying of water to specific lands, if water quality objectives are not met by the specified compliance dates, no proceedings are pending to modify the objectives or the compliance dates, Regional Board administrative remediates fail to achieve compliance, and the Regional Board has determined that, as a last resort, exercise of such authority is required." **(SLDMWA; 4/17/96)**

The recommendation is to add two conditions that would have to be met before the Regional Board would request the State Board to use its water rights authority. These are "no proceedings are pending to modify the objectives or the compliance dates" and "the Regional Board has determined that, as a last resort, exercise of such authority is required."

Inasmuch as the Regional Board is the agency that sets the objectives and compliance dates, the fact that proceedings are pending would indicate that the Board has not given up on achieving compliance through its administrative remedies. Since the Regional Board will not submit the request to the State Board until its administrative remedies are exhausted, this addition is not needed.

With respect to the second proposed addition, it is already clear from the language in the Basin Plan that the Regional Board would carefully evaluate the need to request the State Board use its water rights authority. It should be noted that even after the State Board makes the request, the State Board would conduct its own evaluation of the situation to determine the appropriate action to take.

Action # 5 - Use of Research Grant Funds

The irrigators in the Grasslands Watershed area should provide funding for research and demonstration of advanced technology that will be needed to achieve final selenium loads necessary to meet selenium water quality objectives. This agency believes the financial

burden for testing, monitoring, and demonstrating credibility for not using best available technology for removal of selenium from the discharge should be placed upon the discharges. **(City of Stockton; 4/15/96)**

Dischargers are currently monitoring their individual discharges and selected receiving waters under Monitoring and Reporting Program SJR001. The monitoring conducted by the dischargers will be further refined through waste discharge requirements. Control Action 5 for the State Water Board recognizes that the selenium problems in the San Joaquin Valley are far reaching and require cooperation from multiple agencies in order to develop a viable solution in a timely fashion. A similar approach is being used with the refinery discharges in the Bay Area. The State Board may have access to research funds unavailable to the dischargers which may provide for the technological solutions necessary to insure the success of this program.

CONTROL ACTIONS (OTHER AGENCIES)

Action # 1 - Need for a Regional Drainage Management Entity

Actions for implementation by Other Agencies. Item 1 states that entitles in the Grasslands watershed need to form a regional drainage management entity. This has been done. Therefore, the amendments should state: The Grassland Basin Drainage Management Activity Agreement formed within the San Luis and & Delta-Mendota Water Authority is such an entity. **(SLDMWA; 4/17/96)**

The existing Regional Board policy is that "the control of agricultural subsurface drainage will be pursued on a regional basis. This is to ensure that water quality improvement programs include all the interests of the watershed and includes the upslope contributors. The only effective way to proceed with such an effort is through a regional entity. The initial efforts to form a regional entity have been done and an activity agreement through the San Lusi & Delta Mendota Water Authority has been signed. The control action as it is worded however is still valid as the need continues for a regional entity whether it be through the existing one or a future on that considers more than just selenium and subsurface drainage waters. No language revision is suggested.

Action # 5 - Extending the Bypass

Other Entities, Item 5. This item recommends that the San Joaquin Valley Drainage Implementation Program continue to investigate the alternative of a Valley-wide drain. . . .The Water Authority recommends that this item be amended to read... "The San Joaquin Valley Drainage Implementation Program or other appropriate agencies should continue. . ." **(SLDMWA; 4/17/96)**

The language has been revised as suggested.

Control action # 5 should be revised to read: The San Joaquin Valley Drainage Implementation Program should continue to investigate the alternative of a San Joaquin River Basin drain to move the existing discharge point for poor quality agricultural subsurface drainage to a location where its impact on water quality is nonexistent. This

agency is opposed to the expedient introduction of pollutants into the San Joaquin River and Delta. **(City of Stockton; 4/15/96)**

Any discharge into a water body will have some impact, good or bad. The Regional Board is responsible to develop a regulatory control program which will protect the beneficial uses of the receiving water body. This action is to request appropriate agencies to investigate whether there are options to the existing discharge point that would provide greater water quality protection for the flows that are generated within the San Joaquin River Basin only. The Regional Board would not support such a discharge unless beneficial uses are protected.

CONTROL ACTIONS (REGIONAL BOARD)

Action # 1 - Watershed Approach to Beneficial Uses Protection

I do not believe that the proposed action focuses on the combination of sensitivity of beneficial uses and the environmental benefit which can be definitely expected. **(J. Letey; 4/16/96)**

The evaluation of the impacts of selenium on beneficial uses identified two uses that are particularly sensitive; preservation of biological habitats of special significance (the wetlands) and freshwater habitat. The water quality objectives have been set as 2 μg/l (monthly mean) for waters that supply wetlands and 5 μg/l (4-day average) for waters that are freshwater habitat. The dischargers are developing changes in the drainage system that will allow diversion of drainage waters with high levels of selenium around water supply channels that supply the wetlands and based on a Regional Board analysis, this will bring these waters into compliance with the 2 μg/l objective. The control program includes a prohibition of discharge that will prevent discharges of agricultural subsurface drainage to Salt Slough and water supply channels after 1 October 1996 and this is expected to be completely effective. Freshwater habitat is the next most sensitive use, but due to the nature of the source of selenium and the characteristics of the watershed, it will take several years to bring selenium levels down to concentrations that comply with water quality objectives.

Action # 2 - Use of Loads vs Concentration for Regulatory Actions

Actions and Schedule to Achieve Water Quality Objectives, Item 2. The Water Authority recommends adding at the end of item 2, the following: "Once objectives are achieved, control actions may focus on concentrations." **(SLDMWA; 4/17/96)**

Based on the Regional Board evaluation of the discharge, obtaining load reductions is the most effective way of meeting water quality objectives in the San Joaquin River. Given the current situation and the extent of work needed to bring discharges into compliance with water quality objectives, it is premature to indicate the best way to maintain compliance with selenium objectives.

The Regional Board will be evaluating and updating the control program and will be able to make appropriate revisions at that time when selenium concentrations are in compliance with the water quality objectives.

One conclusion that might be drawn from these results **(loss of selenium in wetland supply channels)** *is that reductions in selenium load to the San Joaquin River might best be accomplished by understanding and promoting the mechanisms which contribute to in-transmit loses since they seem to be well correlated with the selenium loads to the River.* **(J. Letey; 4/16/96)**

The Regional Board program does not specify what must be done to reduce selenium loads discharged to Mud Slough and the San Joaquin River. Dischargers are able to use what they have determined to be the best combination of available control measures to meet discharge limits. Evaluating the mechanisms which contribute to in-transit losses could be part of the dischargers' efforts to determine the best control measures.

"Control action which results in selenium load reduction are most effective in meeting water quality objectives." I completely agree with this but the present plan ignores the opportunity for selenium load reduction by using the wetlands. Indeed, recent history suggests that load reductions in the wetlands are far more effective than load reductions which have been achieved by irrigation management. I do not suggest, however, that irrigation and drainage management should not be pursued to a greater extent than presently adopted. **(J. Letey; 4/16/96)**

The attempts to alternate use of the wetland channels to deliver good quality water and then to carry agricultural drainage is preventing the full use of the available good quality water supplies. To remedy this situation, water agencies in the area are rerouting the drainage around the wetlands. The effect of the rerouting on the loss of selenium in transit has not been quantified.

The owners of the wetlands channels are not the dischargers of the selenium and are not responsible for reducing the loads of the discharges. The dischargers can choose the control measures they want to use to comply with the Board's control program and this could include the development of mechanisms that promote in-transit losses.

The Staff Report needs to . . . give greater consideration to the potential role of Real-Time Monitoring in achieving water quality objectives in the future. In addition, the Staff Report should acknowledge that if local agencies demonstrate real-time capability that consideration would be given to this approach. **(SLDMWA; 4/17/96)**

As discussed in the November 1995 staff report (CVRWQCB,1995b) and Part V of the March 1996 staff report (CVRWQCB, 1996), the load targets described are based on meeting applicable performance goals and water quality objectives. Water quality improvements have only been observed in the San Joaquin River downstream of the Merced River when load reductions take place. To date, there have been no demonstrated improvements in water quality due to Real-Time Management. Should Real-Time Management prove viable, modifications to the Basin Plan and/or waste discharge requirements may be required.

Action # 3 - Use of Short-term Actions vs Long-term Goals

"With the uncertainty in the effectiveness of each control action, the regulatory program will be conducted as a series of short-term actions that are designed to meet long-term water

quality objectives." I do not believe the proposal is consistent with this statement. **(J. Letey; 4/16/96**

The attempts to alternate use of the wetland channels to deliver good quality water and then to carry agricultural drainage has prevented the full use of the available good quality water supplies for wetlands enhancement. To remedy this situation, water agencies in the area are rerouting the drainage around the wetlands. The effect of the rerouting in the short-term is the loss of selenium removal techniques that have caused a load reduction entering the San Joaquin River. The loss of selenium in transit in the wetland channels has not been quantified to date and may not be a significant factor.

The owners of the wetlands channels are not the dischargers of the selenium and are not responsible for reducing the loads of the discharges. The dischargers can choose the control measures they want to use to comply with the Board's control program and this could include the development of mechanisms that promote in-transit losses.

Previous Action # 4 - Emphasis on Water Conservation

Actions and Schedule to Achieve Water Quality Objectives, Original Item 4. This item, which is proposed to be deleted, states that best management practices are applicable to the control of agricultural subsurface drainage. . . .The Water Authority strongly recommends that the sentence describing best management practices not be omitted. **(SLDMWA; 4/17/96)**

The sentence will be retained rather than omitted, as suggested. The wording will be changed slightly, replacing the word "principally" with "such as". This will indicate that practices in addition to water conservation measures are applicable to the control of agricultural subsurface drainage. The sentence now reads: "Best management practices, such as water conservation measures, are applicable to the control of agricultural subsurface drainage.

. . . the Regional Board must be careful not to interfere with a district's ability to deal with its drainage problems locally. Regulations in the areas of water conservation and irrigation practices should be left up to the districts. **(Westlands; 4/16/96)**

It is not the intent of this policy to describe the water management measures that should be used to meet water quality objectives. The emphasis on water management and water conservation is the result of monitoring data that shows that load reduction can be achieved through better water conservation. It remains up to the water and drainage districts to implement the best mix of practices that allows the objectives to be met.

Action # 4 - Use of Performance Goals to Measure Compliance Progress

There will be no improvement in San Joaquin salt (selenium) loading for 5 years. After that, there are only water quality objectives and "GOALS" not enforceable standards. **(Patagonia; 4/17/96)**

Use of 5 part per billion (ppb) and 8 ppb monthly mean performance goals . . . are not adequate as implementation measures during the period leading to full compliance with water quality objectives. The ppb and 8 ppb monthly mean performance goals are scientifically unjustified because they do not prevent chronic toxicity and therefore fail to provide adequate protection to beneficial uses. As a result, the U.S. Environmental Protection Agency disapproved their adoption as Basin Plan objectives. They are also unnecessary as performance goals; the load reductions to be specified in enforceable effluent limits provide a better measure of progress toward compliance. **(Bay Institute, EDF, and NRDC; 4/17/96)**

The amendment adopts selenium water quality objectives for the San Joaquin River, Mud Slough (north), Salt Slough, and wetland water supply channels. Prohibitions and Waste Discharge Requirements (WDRs) will be the regulatory mechanisms to ensure that the water quality objectives are met. Performance goals will be utilized to ensure continual improvements in water quality in line with the compliance time schedule and will direct the Board on how to frame the WDRs. The WDRs will provide enforceable effluent limits. Porter-Cologne prohibits the Regional Board from specifying the manner of compliance with WDRs.

Why does the Regional Board not act NOW to secure compliance with the 2 µg/L standard? **(Patagonia; 4/17/96)**

The series of prohibitions laid out in the Basin Plan amendment should achieve compliance with the 2 µg/L selenium water quality objective in the wetland supply channels and therefore the managed wetlands in the Grassland watershed by 1 October 1996.

Table IV-4 provides selenium water quality objectives and performance goals based on a schedule of compliance to meet the objectives. We recommend that both maximum and continuous objectives be listed in this table to be consistent with Table 3 of the Draft March 1996 Executive Summary of the proposed Amendments (page 11). Table IV-4 gives the impression that, prior to the date of compliance with continuous objectives, no objectives apply, while the "maximum" objective is in effect proposed to serve as the continuous objective during this period. The table should be revised to make this clear.

The terms "average" and "mean" are used interchangeably. One of these terms should be used consistently in Tables IV-4 and III-1. **(SWRCB; 4/17/96)**

The title of Table IV-4 has been changed to clarify that it is a compliance time schedule for meeting the monthly mean and 4-day average selenium water quality objectives.

The terms in the Basin Plan are used by the agencies working on the control of selenium discharges. Changing the terms may cause confusion and therefore they have not been revised.

Infusions of fresh water from the Merced will dilute the San Joaquin River, making up for the 98% flows taken by Friant Dam. There is no discussion of the unfairness of taking flows from the Merced, Tuolumne and Stanislaus to meet the standards at Vernalis, . . . **(Patagonia; 4/17/96)**

The Basin Plan amendment considers the current hydrology of the San Joaquin River to determine practical improvements in agricultural subsurface drainage management to achieve selenium water quality objectives. It is uncertain if flows from Friant Dam will ever be continuously released into

the San Joaquin River; therefore, the Merced, Tuolumne, and Stanislaus River will continue to supply the majority of freshwater inflows to the river. The amendment focuses on the selenium water quality objectives that must be met in the river. The appropriate effluent limits for future waste discharge requirements will be determined using historical flow and water quality information to determine assimilative capacity. Nothing in the amendment requires increased dilution flows from the Merced, Tuolumne, or Stanislaus Rivers.

Action # 4 (continued) - Time Schedule for Compliance

The 10 - 15 year compliance schedule will allow for serious long-term degradation of water quality in Mud Slough (north) and the San Joaquin River, in violation of federal and state antidegradation requirements. A shorter compliance schedule is consistent with national implementation of federal Clean Water Act discharge requirements and is feasible using currently available technologies and management strategies. We therefore urge the Board to adopt a more timely schedule for compliance (e.g., no longer than the 5 - 7 year period identified in Alternative 4). **(Bay Institute, EDF, NRDC; 4/17/96)**

. . . postponing mandated compliance with the standards for the San Joaquin River (which are only marginally different from the standards that should have been enforced in 1991) 10 or 15 years will not generate the swift improvements in water which are both possible and necessary. We believe that Potential Control Action 4... should be rewritten with much earlier compliance dates (5 years or less) that reflect the San Joaquin River's history of poor water quality as well as the current availability of drainage management strategies which could generate rapid improvements. **(Contra Costa County; 4/17/96)**

The maximum time period allowed for compliance is 15 years. Additionally, a series of increasingly more stringent performance goals will apply. This program will lead to continual improvement in water quality prior to full compliance. Prohibitions apply which ensure that the selenium load to the San Joaquin River will not exceed historic levels prior to achieving water quality objectives. Water quality objectives will either be achieved in Mud Slough (north) by 1 October 2010 or a prohibition of subsurface agricultural discharge to that water body will also apply.

As discussed in the March 1996 staff report (CVRWQCB, 1996) many of the technologies recommended by the San Joaquin Valley Drainage Program are still in the development stage. Irrigation improvements have been largely implemented in the Drainage Problem Area, but have not resulted in achievement of water quality objectives. The other technologies will take time to develop and implement. It is highly unlikely that those technologies can be developed and implemented in a short time frame.

The staff report estimates that annual selenium loads must be less than 1,100 lbs in dry years and less than 3,100 lbs in wet years before compliance with a 5 μg/L, 4-day average occurs. This is an 80% reduction in dry years and a 47% reduction in wet years. At a rate of reduction of 5% per year as was proposed in the concensus letter, selenium loads would not be below 3,100 lbs until the water year 2008 nor below 1,100 lbs until the water year 2014. The schedule presented in the Basin Plan Amendment requires compliance in a quicker time frame.

Considering that the short term use of an existing facility has taken over five years to implement, it seems unrealistic to expect that the long-term use of an expanded wetland bypass project can be

implemented in less than five years. Besides the financing difficulties, the NEPA/CEQA process will be protracted - as evidenced by the interim use of the San Luis Drain project.

We believe it is more difficult to assign comparative scores to Alternatives 2 and 3 than the procedure described in the Table suggests. Furthermore, given the large amount of uncertainty regarding the possible impacts of selenium in the San Joaquin River, and the relatively good information describing the potential costs of imposing severe load restrictions, it may be socially optimal to choose the longer compliance time schedule. **(SLDMWA; 4/17/96)**

The compliance schedule specified in the Basin Plan amendment meets water quality objectives in the shortest time period reasonably achievable. The table comparing alternatives summarizes the review which took place for each of the alternatives which is described in detail in Appendix 2 of the March 1996 staff report (CVRWQCB, 1996). The discussion includes a review of the available alternatives and cost.

Action # 6 - Use of Waste Loads to Establish Effluent Limits

I am aware of the total maximum daily load proposed for selenium; however, industry in the Bay Area is not allowed to discharge in this manner and neither should the agricultural industry. **(City of Antioch; 4/17/96)**

It would not be appropriate to apply the same standards for river discharge as is applied to refineries in the San Francisco Bay/Delta Estuary. The receiving waters differ significantly, the type of selenium being discharged is different and the sources of discharges differ significantly (point versus non-point sources of pollution). The Basin Plan Amendment proposes using a similar regulatory tool, waste discharge requirements which contain effluent limits to control the agricultural discharges. The maximum penalties for violations of waste discharge requirements are clearly established by state water quality law (Porter-Cologne Water Quality Control Act; Water Code Sections 13265 and 13350).

This provision should be modified to require waste discharge requirement on all discharges, not simply "as necessary." **(Stockton East; 4/17/96)**

The "as necessary" in this control action refers to the use of selenium load reduction estimates to establish effluent limits in waste discharge requirements, not the issuance of the waste discharge requirements.

The Water Authority recommends that two sets of information be included as footnotes with Table 7 (March 1996 Staff Report): 1) The load reductions called for in this table are not achievable with current technology and with available financial resources; and 2) The load reductions called for in this table are not necessary to achieve water quality objectives, but result from a statistical analysis of historical river conditions. These load reductions would not be necessary if a successful Real-Time Monitoring and Management program is implemented. **(SLDMWA; 4/17/96)**

The suggested footnotes were not added to Table 7 for the following reasons: 1) the table contains information on selenium loads and does not address technology or financial issues.

Adding a footnote on technology or financial issues would be inappropriate; and 2) the method used to develop the table (a statistical analysis of historical river conditions) is provided in the discussion that references the table.

A successful real-time monitoring and management program is only one of many factors that could revise the load changes presented in the table. All aspects related to the development and use of this load information can not be presented in footnotes.

Action # 6 (continued) - Use of TMDLs For Regulation

We recommend that the Basin Plan Amendment recognize that the TMDL approach does not have consensus, and that the plan should be reviewed in the future. **(SLDMWA; 4/17/96**

Item 6b. This item states that selenium load milestones will be incorporated into waste discharge requirements to ensure that requirements for the implementation of a Total Maximum Daily Load (TMDL) program are satisfied. The Water Authority supports the current language in this item, only upon the understanding that the Consensus Letter load targets will satisfy Clean Water Act TMDL requirements for the interim period of the Use Agreement, and that there will be opportunities for further input regarding the use of a TMDL program on a long-term basis. **(SLDMWA; 4/17/96)**

The staff report does include a preliminary TMDL for selenium in the San Joaquin River below the Merced River which could be submitted to the U.S. EPA for approval upon adoption of the Basin Plan Amendment. The March 1996 staff report (CVRWQCB, 1996) provides more details regarding how the TMDL could be submitted. Although the TMML will not be incorporated directly into the Basin Plan, it will be used as one of the basis for establishing effluent limits in waste discharge requirements to achieve water quality objectives. The Basin Plan Amendment explicitly states that effluent limits will be consistent with Clean Water Act requirements for implementation of a TMDL although a TMDL is not required for a nonpoint source discharge from irrigated agriculture. The Regional Board concluded that it was not appropriate to identify a specific methodology for calculating the TMDL in the Basin Plan itself to allow flexibility in how the methodology is developed for nopoint sources in western rivers. A preliminary methodology can be identified in the proposed letter for submittal of the TMDL to the U.S. EPA, along with the proposed preliminary load limits which allows more flexibility to update the TMML as more information becomes available.

The TMDL methodology will not be used in the first five years of the regulatory program as a consensus proposal from the U. S. Fish and Wildlife Service, the U. S. Bureau of Reclamation, the U. S. Environmental Protection Agency and the San Luis & Delta Mendota Water Authority specified load limitations (Consensus, 1995) and the Regional Board found these to adequate for the initial period.

As stated in the staff report, selenium load limits will not be used to meet objectives in Salt Slough, Mud Slough (north), the wetland supply channels, or the San Joaquin River above the Merced River. Rather, a prohibition of discharge will be the regulatory mechanism.

. . . the TMML program described in the Staff Report is overly conservative and results in water quality parameters that are much better than the EPA 5 µg/l objective in most months of most years. (SLDMWA; 4/17/96)

The TMML developed to meet water quality objectives in the San Joaquin River is consistent with U.S. EPA guidance. That guidance is set up to ensure continual compliance with water quality objectives under all river hydrology and discharge conditions. The load targets developed assume that there will be times when there is unused assimilative capacity during high flows, but that water quality objectives will be met during low flows.

The Water Authority recommends that the Regional Board expand the discussion of the TMDL program in its submittal letter, to include the concerns we have expressed regarding the appropriateness of that program and its potential economic impacts on the region. **(SLDMWA; 4/17/96)**

It would be more appropriate for the San Luis and Delta-Mendota Water Authority to submit its concerns regarding the TMDL program directly to EPA but the Regional Board will include a copy of those comments in our submittal.

The Water Authority recommends that the description of the TMDL program be enhanced significantly to communicate the conceptual nature of such a program, the likely economic costs and damages, and the alternatives that may be available for protecting beneficial uses in the San Joaquin River. Some of the wording on Page 98, such as "Table 9 presents the recommended effluent limits required to meet applicable performance goals and water quality objectives. . ." should be changed to reflect the possibility that a Real-Time Monitoring Program may be successful in achieving water quality objectives, without the need for a TMDL program. **(SLDMWA; 4/17/96)**

As discussed in the November 1995 staff report (CVRWQCB, 1995b) and Part V of the March 1996 staff report (CVRWQCB, 1996), the load targets described are based on meeting applicable performance goals and water quality objectives. Water quality improvements have only been observed in the San Joaquin River downstream of the Merced River when load reductions take place. To date, there have been no demonstrated improvements in water quality due to Real-Time Management. Should Real-Time Management prove viable, modifications to the Basin Plan and/or waste discharge requirements may be required.

Action # 7 - Points of Compliance

Item 7. The Water Authority recommends that item 7 be modified to read. . . "Effluent limits for selenium establishment in waste discharge requirements. . . ." **(SLDMWA; 4/17/96)**

The sentence has been revised to show that the effluent limits apply to selenium discharges.

Page 30, Agricultural Drainage Discharges in the San Joaquin River Basin, Paragraph 7. The text should be revised to read ". . .will be applied to the discharge of selenium with subsurface drainage water from the Grassland watershed. . .," and, ". . .equal to the receiving water objectives for selenium to ensure that beneficial uses are protected. . . ." **(DPR; 4/18/96)**

This paragraph has been reworded to clarify that the effluent limits apply to selenium.

Action # 8 - Participation of Upslope Irrigators

Why has the Upper Panoche Watershed been removed from consideration as being a high priority non-point source problem? It is still a disaster area. **(Patagonia; 4/17/96)**

Under "Actions Recommended for Implementation by Other Agencies: State Water Board", item (4) has been revised to specifically acknowledge that the upper Panoche watershed is a priority nonpoint source problem.

Action # 9 - Participation of Wetland Areas

"Public and private managed-wetlands will participate in the program to achieve water quality objectives." This item appears to be completely ignored in the proposal. **(J. Letey; 4/16/96)**

Managers of public and private wetlands have been active in the discussion of water management in the grasslands basin and the Board expects them to continue to play an active role. The wetlands are not the dischargers of the selenium in the agricultural subsurface drainage, but water management by the managers within the watershed effects the effort to achieve water quality objectives. In addition, the wetland areas will carry an important role in the solutions to the salinity management problems on the San Joaquin River.

Action # 10 - WDR Review Schedule

Stockton East believes that a shorter review period should be established . . . Stockton East would recommend that the Regional Board review waste discharge requirements and attainment of the compliance schedule on a yearly basis. This annual review would coincide with new provision (12) which requires an annual review of the effectiveness of control actions by those generating the agricultural subsurface drainage. **(Stockton East; 4/17/96)**

The review period for the WDRs identified in the Basin Plan amendment is at a minimum of every five years. This review schedule is consistent with reviews for other high priority dischargers which are under WDRs. WDRs can be modified at any time. The Regional Board may review the requirements more frequently if it is warranted and sufficient funding is available. In addition, the proposed amendment requires annual review of the effectiveness of control actions. The annual review will be conducted by the dischargers and submitted to the Regional Board for evaluation.

We strongly recommended that at a minimum, the Basin Plan Amendment should state that the compliance time schedule is subject to review and revision, after further consideration of pertinent economic data. **(SLDWMA; 4/17/96)**

The review period for the compliance schedule and WDRs is at a minimum of once every five years as stated under Actions and Schedule to Achieve Water Quality Objectives, Item 10. Economic information will be considered during the review.

This agency is opposed to the above language addition (regarding effectiveness of meeting load reduction milestones being dependent on actions or technology not currently available), since technology is readily available to remove selenium from the discharge in the form of reverse osmosis and electrodialysis. **(City of Stockton; 4/15/96)**

Expert testimony provided for Westlands Water District during recent litigation indicated that some cost effective treatment technology was available (see Appendix 3 in the March 1996 staff report (CVRWQCB, 1996)). Since cropping patterns are similar in Westlands and the Drainage Problem Area, such a process should also be cost effective in the Drainage Problem Area. The time needed to develop a full-scale treatment process is reflected in the extended time schedule allowed.

Many other selenium load reduction technologies are still in the research and development phase. If such technologies were currently available for implementation, a more stringent compliance time schedule would be adopted. At this time, even the most promising new treatment technology is not able to reduce selenium levels to the point where water quality objectives could be met in Mud Slough (north) due to the slough's limited assimilative capacity.

Action # 15 - Salinity Control

We believe that the Regional Board must begin immediately to address the salinity problem on the San Joaquin River. **(Stockton East; 4/17/96)**

The District is concerned that this [prioritizing the regulation of selenium] has resulted in a delay in the Regional Board's efforts in seeking the reduction in other contaminants such as salinity and boron. [and]. . . The District also requests that the Regional Board increase its efforts to regulate pesticides such as diazinon. (Contra Costa Water District, 12/7/95)

Regional Board will begin the process for setting water quality objectives and developing an implementation program for salinity in the San Joaquin River upstream of Vernalis in early 1996.

Item 15. The Water Authority recommends a footnote in this item indicating that a compliance schedule for boron will be forthcoming in a future basin plan amendment. **(SLDMWA; 4/17/96)**

The Board is developing a work plan for preparing a basin plan amendment addressing salinity and boron. It is, however, premature to indicate what will be in the amendment.

LAND RETIREMENT

The proposed amendments to the Plan will tighten regulations on the discharge of subsurface drainage water to the San Joaquin River (River) which may eventually force significant expenditures on treatment or the retirement of lands to meet the River's water quality objectives. The economic and environmental impacts of retiring large acreages of productive agricultural lands will be tremendous and must be considered in evaluating the proposed amendments. **(Westlands; 4/16/96)**

There are many questions that need to be answered in regards to the most effective method for implementing a land retirement program. Issues such as the percentage of upslope contribution, whether the tile lines will need to be plugged, and the cost effectiveness of land retirement should be addressed. Despite these outstanding issues, land retirement is a viable method for reducing selenium loads. The extended compliance schedule should provide the time frame necessary to address many of these questions.

The Regional Board does not have authority over land use and does not have the funds to purchase land. The California Department of Water Resources and the U.S. Bureau of Reclamation both have the legal authority and funds to initiate a land retirement program.

Why does the report make no mention of the program for the retirement of lands whose soils are loaded with toxic selenium? **(Patagonia; 4/17/96)**

Staff has discussed land retirement as an option in its August 1995, November 1995 and March 1996 staff reports. The Basin Plan amendment language does state that the Regional Board will request the State Board (which has authority over water rights) to review the preclusion of water supplies if compliance does not occur by the dates specified and Regional Board administrative remedies fail to achieve compliance.

COMPLIANCE MONITORING

The series of benign statements under this title only serve to underscore the general weakness of the Regional Board's approach to the serious and immediate pollution crisis in the San Joaquin River. In addition, since neither EPA nor USGS has yet signed off on the monitoring program proposed by the Bureau and the Delta Mendota Water Authority, there can be no clear public understanding of what the monitoring program is to consist of and who will oversee the historic lack of Regional Board enforcement. (Patagonia; 4/17/96)

(Proposed Changes to Surveillance and Monitoring) This agency supports keeping the language to numbers 2, 3, and 4 and striking the proposed changes to same. Surveillance and monitoring should stay with the regulating entity (Regional Board). Forfeiting same would be to condone Backsliding. (City of Stockton; 4/15/96)

The Regional Board has had an ongoing monitoring program since 1985. Numerous reports have been published and are available to the public. The Regional Board does not have the authority to require an entity other than the dischargers to conduct a monitoring program. Additionally, the Regional Board does not have the funds to support a monitoring program by another agency. Self monitoring by the discharger is the normal mechanism employed by the state to determine compliance with WDRs. There are no proposals contained in the staff report to transfer State regulatory

responsibilities. Monitoring of receiving water is currently conducted by the Regional Board and individual district drains are monitored by both the Regional Board and districts. Continuation of the Regional Board's monitoring program will depend on the availability of funds.